

## Neuro-Ophthalmology problem in Zika Virus Infection

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The Zika virus infection is the new topic in medicine. This story of Zika virus infection starts from its big outbreak in South America. There were many infected cases in Brazil. Mainly, the disease is primarily classified as a mosquito borne infectious disease. However, the new evidences show that there can be other modes of transmission including to the transplacental transmission for Zika virus infected mother to the fetus in utero. The great concern is due to the occurrence of the observation on abnormal babies born to infected mothers. The Zika virus infection during pregnancy period can result in transplacental transmission of the pathogenic virus and can further induce the abnormalities in fetus. The neurological involvement of the virus is the big issue.

In neuro-ophthalmology, the problem in the affected newborn is described. Niaz and Abdollahi mentioned that "the ability of the virus to cross the placental barrier and the blood brain barrier (BBB) has been associated with birth defects such as microcephaly, ocular defects, and Guillian Barre syndrome (GBS) [1]." Focusing on the defected newborn, the microcephaly is the overt finding in problematic cases. However, it should be noted that the neuro-ophthalmological problem can be the hidden problem without microcephaly [2]. In addition, new data also show the problem in general infected adults. Beckham, et al. noted that "Recent data suggest that acute ZIKV infection in pregnant women may result in acute infection of fetal tissue and brain tissue, causing microcephaly and potentially severe debilitation of the infant or even death of the fetus. Cases of acute ZIKV are also associated with Guillain-Barré syndrome. With the increased number of cases, new complications such as ocular involvement and sexual transmission have been reported [3]."

Hence, it is no doubt that the issues of neuro-ophthalmology problem in Zika virus infection have to be the new consideration in the present era of worldwide Zika virus infection outbreak. The investigation for neuro-ophthalmological problem should be included in clinical assessment of any suspicious cases of Zikavirus infection.

### References

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